REMARKS

These Remarks are responsive to the non-final Office Action mailed September 24, 2009 ("Office Action"). Claims 44–77 are pending. Claims 44, 48, 51, 53, 56, 57, 59, 60, 68, 69, 70, 73, 75, and 77 have been amended, and new claim 78 has been added. Support for the amendments may be found throughout the application as originally filed. Support for new claim 78 is found in at least original claims 1, 2, 4, 6, 8, 9, 29, and 30, and in page 6, lines 11–13 and Example 2 (particularly Tables 2.1 and 2.2 on pages 12–13) of the as-filed specification. No new matter has been added. Applicant requests reconsideration for the following reasons.

Claim objections

Claims 44 and 60 were objected to based on the recitation of "a gene for encoding." The Office Action recommended amending the claim to recite "a gene encoding." In response, claims 44 and 60 have been amended as suggested in the Office Action.

Claim 48 has been amended to depend from claim 47 rather than 46, as suggested in the Office Action. Similarly, claim 51 has been amended to depend from claim 50 rather than 49, as suggested in the Office Action.

Applicant notes the objection of claim 77 as being a substantial duplicate of claim 73. Claim 77 has been amended, and the amended claim 77 is no longer a substantial duplicate of claim 73.

35 U.S.C. § 112, first paragraph, written description requirement

Claims 44–77 were rejected as allegedly having insufficient written description, specifically for reciting a "gene. . . derived from a bovine or *Camelidae* species," where the term "derived" was alleged to encompassed variants and mutants which were "unlimited" in structure. The Examiner has agreed that the disclosure (and knowledge available in the art) includes bovine chymosin and *Camelus dromedarius* chymosin, but alleges that these known chymosins were insufficiently representative of all chymosins that could be derived from bovine and *Camelus* chymosins and accordingly are allegedly insufficiently representative of the claimed genus to provide sufficient written description support. Applicant respectfully traverses.

The rejection is based on the proposition that adequate written description requires disclosure of species representative of the claimed genus. *See* MPEP § 2163. However, the

claims are not drawn to a genus of chymosins *per se*, but rather to a genus of methods utilizing chymosin. The method steps encompass lowering the pH and passage of sufficient time to achieve specified levels of enzyme activity (inactivation of glucoamylase activity while maintaining chymosin activity). Species encompassed within these steps, such as methods of lowering pH and amounts of time that can be elapsed, are readily envisioned by one of skill in the art upon reading the disclosure. The claimed method can be performed irrespective of whatever chymosin is provided. Therefore, the present rejection does not allege any lack of support for the claimed genus of methods, and accordingly is improper.

Moreover, the written description may be satisfied by a representative number of species or identifying characteristics such as functional characteristics coupled with known or disclosed correlation between function and structure. In the present case, the claims specify a functional characteristic (chymosin activity), and the general knowledge in the art provides the requisite correlation between structure and function. For example, amino acid residues that are likely to be important for enzyme activity are readily identified sequence alignment, comparison to known sequence motifs, other known techniques. Further guidance as to tolerable sequence variation is provided in the general knowledge available in the art (for example, "conservative" amino acid substitutions that are less likely to alter protein function are well known in the art). Therefore, even if written description support were required for the chymosin species that could be used in the presently claimed method (which Applicant disputes), it would be found in the bovine and *Camelus dromedarius* chymosin species together with the knowledge available in the art, and accordingly the rejection is improper for this further reason.

Nonetheless, to advance prosecution, the term "derived" has been deleted from the claims, rendering the rejection moot.

Though not specifically relied upon in stating the rejection, the Examiner has expressed concern that the chymosin from the species *Camelus dromedarius* may not be sufficient for written description support for the whole family of Camelidae. To advance prosecution, the relationship of chymosin from the species *Camelus dromedarius* to the chymosins of family Camelidae are expounded below.

The family Camelidae only includes three genera and six known species, as follows:

Llama

L. glama (Llama)

L. guanicoe (Guanaco)

Vicugna

V. vicugna (Vicuna)

V. pacos (Alpaca)

Camelus

C. dromedaries (Dromedary)

C. bactrianus (Bactrian Camel).

Absent some *prima facie* showing by the examiner to the contrary, there is no reason to characterize a taxon consisting of six living species as "wildly variant."

Complete prochymosin sequences for C. dromedaries, C. bactrianus and L. llama, and a partial sequence for L. guanicoe are shown in Exhibits A and B, attached. These sequences share at least 96% identity with one another, as shown in the table below:

	C. bactrianus	C. dromedaries	Llama	Guanaco
C. bactrianus	100	98	97	96
C. dromedaries		100	98	96
Llama			100	96
Guanaco				100

We respectfully direct the Examiner's attention to the Example 14 in the PTO's Revised Written Description Guideline Training Materials:

> There is actual reduction to practice of the single disclosed species [SEQ ID NO:3] . The specification indicates that the genus of proteins that must be variants of SEQ ID NO: 3 does not have substantial variation since all of the variants must possess the specified catalytic activity and must have at least 95% identity to the reference sequence, SEQ ID NO: 3. The single species disclosed is representative of the genus because all members have at least 95% structural identity with the reference compound and because of the presence of an assay which applicant provided for identifying all of the at least 95% identical variants of SEQ ID NO: 3 which are capable of the specified catalytic activity. One of skill in the art would conclude that applicant was in possession of the necessary common attributes possessed by the members of the genus.

While the claims don't use explicit percentage sequence identity language, it is clear that the Camelidae chymosins in fact share at least 95% sequence identity. The term "chymosin" implies a particular biological activity. Hence, claim 1 is within the purview of RWDGTM Ex. 14.

It is also interesting to note that when these sequences are aligned with each other and bovine chymosin (see Figures A and B, attached), there are three areas of special interest:

a.a. 57–68, with 6 Camelidae specific amino acids. The differences between Camelidae and bovine chymosin in this area result in a remarkable change in charge. These comprise the first amino acids of the mature chymosin molecule

a.a 160–161. Two very exposed amino acid residues at the backbone of the molecule.

a.a 301–329. Most differences between Camelidae and bovine prochymosins are located at the C-terminal part of the molecule. The 301–329 area is located at the entrance of the catalytical cleft and is likely to be responsible for interaction with the casein substrate of the molecule.

Most differences from bovine chymosin are found in all four Camelidae species analyzed. There are only two cases in which both Camelus sequences differ from the two Llama sequences (in both cases the Camelus chymosins have an 'R' while the Llama chymosins have H in one case and Q in the other case).

Based on this comparison it is unlikely that major differences will be found in the functional properties of different Camelidae chymosin molecules.

Even absent knowledge of the Camelidae chymosin sequences, it would have been expected that they are similar in structure, given the overall similarity seen for other Camelidae proteins.

Exemplary proteins for which published sequences are available for the three Camelidae genera Camelus, Llama and Vicugna (see Exhibits C–F).

The first is cytochrome b. Using a Camelus dromedarius cytochrome b sequence (P24952) as the query sequence, we found the following BLAST search results (Exhibit G).

	% Identity	% Smilarity
C. bactrianus (434028)	97	98
L. glama (Q5GH08)	94	97
L. guanicoe (Q5GH04)	94	97
V. vicugna	93	96

(Q5GH07)		
V. pacos (Q5G115)	93	96

We see that at least the Camelus genus cytochrome b proteins have within-taxon identity exceeding 95% and the Camelidae proteins generally are at least 93% identical to C. dromedarius. Cytochrome b being a housekeeping protein, it is pretty well conserved even across a broader taxonomic distance.

Searching with hemoglobin alpha and beta chain with a C. dromedarius sequence alpha (P63106) (Ex. H) and beta (P68231) (Ex. I) we found the following BLAST search results:

	vs. C. dromedarius Hemoglobin A chain (P63106)		vs. C. dromedarius Hemoglobin B chain (P68231)	
	% Identity	% Similarity	% Identity	% Similarity
C. bactrianus	100 (P63105)	100	100 (P68230)	100
V. pacos	97 (P67816)	99	98 (P68228)	100
L. guanicoe	97 (P67815)	99	98 (P68229)	100
L. vicuna	97 (P07425)	98	98 (P68227)	100
L. glama	96 (P01973)	98	98 (P68226)	100

Again, we see that the Camelidae globin proteins have within-taxon identities of over 95%.

Additional examples could be provided. While we don't have comparative sequence data on other Camelidae milk proteins it is interesting to note that for alpha-1 casein and beta casein, the best non-Camelidae matches to C. dromedarius have 47% (Ex. J) and 67% (Ex. K) identity, respectively.

Clearly, the art would consider a Camelus dromedarius protein to be representative of its Camelidae homologues.

35 U.S.C. § 112, first paragraph, enablement

Claims 44–47 were rejected under 35 U.S.C. § 112, first paragraph, for allegedly lacking an enabling disclosure. The Examiner has interpreted the claims as encompassing "mutant and variant forms [of chymosin], wherein the mutant and variant forms are unlimited." Office

Action, page 8. The rejection is based on an allegation that enablement of the claim requires elucidating which possible mutant and variant forms would tolerate the recited lowering of the pH, or at least providing a high level of guidance to facilitate identification of said mutant and variant forms. Applicant respectfully traverses.

At the outset, Applicant notes an apparent minor typographical error in the Office Action, namely a reference to claim 39 (which was previously cancelled). Based on context, Applicant interprets this to have been intended to refer to claims 57 and 73. Clarification is respectfully requested if this interpretation misapprehends the intended meaning.

As discussed above, the claims are not drawn to a genus of chymosins *per se*, but rather to a genus of methods utilizing chymosin. The method steps encompass lowering the pH and passage of sufficient time to achieve specified levels of enzyme activity (inactivation of glucoamylase activity while maintaining chymosin activity). Embodiments of these methods are readily envisioned and performed based on the teachings in the specification and general knowledge and skill in the art. For example, one of skill in the art can readily determine the amount of acid(s) to add to a medium to achieve the desired pH, and can readily determine the time course of loss inactivation of glucoamylase and loss of chymosin activity. Moreover, any given chymosin variant can readily be tested to determine whether the recited level of activity is retained while performing the claimed method. Even if some chymosin variants would not retain the recited level of enzyme activity, this alone would not render the claims non-enabled. *See* MPEP § 2164.08(b) ("The presence of inoperative embodiments within the scope of a claim does not necessarily render a claim nonenabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art."). In the present instance, identifying inoperative embodiments would not require any greater expenditure of effort than normally required (e.g., as disclosed in example 2 in the present specification). Thus, the mere possible existence of some chymosin variants that would not retain the recited level of enzyme activity is insufficient to support a conclusion of nonenablement. Rather, because inoperative embodiments, if any, could be readily identified through routine testing, the rejection is improper.

Nonetheless to advance prosecution, the term "derived" has been deleted from the claims, rendering the rejection moot. The Examiner's characterizations of the cited references

(including Lausten, U.S. Patent No. 6,080,564, Lawlis, U.S. Patent No. 5,801,034, and Ward et al. *Biotechnol.* 8:435–440) are thus rendered moot as well, however, Applicant reserves the right to traverse these characterizations should the references be applied subsequently.

35 U.S.C. § 103 Obviousness

Claims 60–62, 66–71, and 73–77 were rejected under 35 U.S.C. § 103(a) as allegedly obvious in view of Lawlis, U.S. Patent No. 5,801,034 ("Lawlis") and Ward *et al. Biotechnol.* 8:435–440 ("Ward"). Applicant respectfully traverses.

Claim 60, as presently amended, recites "providing a medium having a pH of 2.0 or higher" and "lowering the pH of said medium . . . to between 1.0 and 1.7," and the remaining claims (which depend from claim 60) include subranges or approximate values within this range.

Ward does not teach any lowering of pH as recited in the present claims.

Lawlis *et al.* is cited for its disclosures concerning lowering of pH values for purposes of cell killing. Lawlis teaches a cell killing technique that involves adding an organic acid to a medium and lowering the pH of the medium by 2 pH units below the pKa of the organic acid. Lawlis discloses formic acid (pKa = 3.75), acetic acid (pKa = 4.76), and propionic acid (pKa = 4.87). None of these organic acids have a pKa – 2 within the claimed pH range (as amended). Moreover, the claims, cannot be met by the use of formic acid described in Lawlis as they now require an "inorganic acid" or "lactic acid, acetic acid, propionic acid, or citric acid" in combination with the claimed pH range. However, the Office Action apparently ignores that formic acid is not recited, and alleges obviousness based on a method utilizing formic acid to effect substantial cell kill. *See* Office Action, page 15, final paragraph. Moreover, though Lawlis teaches some lowering of pH to some values, it does not disclose any pH values in the claimed range (as amended). The Examiner has further stated that Lawlis teaches lowering pH values to the pKa – 2 *or lower* and thus allegedly would encompass pH values as stated in the present claims. However, as discussed below, Lawlis teaches away from pH values below pKa – 2 when combined with the general knowledge available in the art, and accordingly the claims are not obvious over Lawlis in view of Ward.

Lawlis teaches a mechanism of action based on the ability of protonated forms of acid to enter cells, as follows:

> While not limited to or necessarily based on the following theory, it is believed that this invention achieves the unexpectedly efficient and substantially complete cell kill by the following mechanism. By reducing the pH of the mixture or media to a value equal to or less than two pH units below the pK_a of the organic acid to be used, the acid is 99% protonated or uncharged and becomes "invisible" to the cell as an acid. The cell may then take up or import the neutral acid compound in the usual manner as a nutrient, because the cell does not see the compound as an acid. Once inside the cell, the acid is reionized and then alters the pH within the cell which kills the cell. Following this theory of the mechanism, it is apparently desirable to select an organic acid that the cell will be likely to take in as a nutrient in the acid's protonated form.

(Lawlis, col. 4, ll. 10–24). Thus, Lawlis explains that his method works by converting a high percentage of an organic acid to its protonated (uncharged) form, which can enter cells and acidify their internal pH, killing them. When the pH of the fermentation medium is equal to the pKa of the organic acid, the proportion of organic acid that is protonated is roughly fifty percent (50%). As the pH is lowered to one pH unit below the pKa, the proportion of protonated organic acid increases to roughly 90%. And as the pH is further lowered to two pH units below the pKa, the proportion of protonated organic acid increases to roughly 99%. Thus, at a pH of two units below the pKa of the organic acid, nearly 100% of the organic acid is present in its protonated or useful form. While further reductions in pH would slightly increase the amount of protonated organic acid, it is clearly a case of diminishing returns—further lowering of pH would only result in 1% more protonated acid. Therefore, once pH is lowered to 2 units below the pKa, the amount of organic acid available becomes the limiting factor in cell kill and further lowering of pH has little or no effect. Lawlis recognizes this, and explains that once the pH is at the proper level, the amount of organic acid is the limiting factor.

> After the pH is adjusted to the proper level, the organic acid is added in an amount sufficient to effect the desired cell kill.

(Lawlis, col. 3, ll. 62–64.)

Lawlis further illustrates this principle of operation in Example IV. In this example, cultures of budding yeast (*Saccharomyces cerevisiae*) were treated with 2% acetate. Lawlis states that only 20% kill was obtained at pH 2.8 (sample #6) and 30% kill was obtained at pH 3.6 (sample #7). To improve killing efficiency, Lawlis suggests increasing acetate concentration (4% instead of 2%) rather than further lowering pH, thus suggesting that any further lowering of

pH would be ineffective. Lawlis, col. 8, lines 15–21. This teaching is consistent with the stated mechanism of action, namely that killing effect depends on the amount of protonated organic acid and when the pH is 2 units below the pKa greater killing can be achieved with a greater concentration of acid. The lack of benefit from further lowering pH is also illustrated in Example IV in Lawlis through comparison of samples #6 and #7. Sample #6 was treated with pH 2.8 (pKa – 1.9) and sample #7 was treated with pH 3.7 (pKa – 1.1). The pH difference between samples #7 and #6 (0.8 pH units) would result in about a 7% higher protonated fraction. However, there was little difference in cell killing between these two samples. In fact, the higher pH sample achieved greater cell killing (30% vs. 20%) though this difference may have been due to measurement error. Thus, Lawlis teaches in both its broad disclosure and examples that lowering the pH to pKa – 2 achieves essentially maximal cell killing, and provides no justification for further lowering pH values beyond that threshold. If greater cell killing is desired, Lawlis teaches that it is ineffective to lower the pH any further; rather, only the concentration of organic acid should be increased.

Lawlis also discusses the undesirability of destroying the desired enzyme activity during cell killing, as follows:

> It is still a further object of this invention to provide a method for effecting a substantially complete cell kill which is compatible with the microbial production of enzymes and the recovery and purification of such microbially produced enzymes.

(Lawlis, col. 2, ll. 17–21.) It was generally known in the art at the time that acidic treatments could cause loss of enzyme activity (*e.g.*, by cleavage of acid labile groups, denaturation, loss of solubility, increased susceptibility to proteolysis, hydrolysis of peptide bonds, etc.), and that the rate and extent of lost activity generally increases with lowered pH. As discussed above, Lawlis teaches that pH = pKa – 2 achieves 99% protonation and thus nearly maximum kill efficiency, and that further lowering of pH has only minimal effect on killing efficiency. Thus, though Lawlis provides results in Examples I and II with pH = pKa – 2.75, these examples only tested cell killing efficiency and did not show any enzyme recover. Lawlis does not provide any justification for using such low pH values when recovery of an active enzyme is desired. Rather, Lawlis teaches that little or no improvement in cell killing is achieved with pH below pKa – 2. If one's ultimate goal is purifying functional enzyme, one of skill in the art would have avoided lowering pH any farther than necessary to achieve efficient killing, *i.e.*, no lower than pKa – 2, to

minimize loss of enzyme activity. If greater killing is desired, Lawlis only teaches that higher concentration of organic acid should be used, because further lowering of pH does not improve killing. *See, e.g.*, Lawlis, col. 3, ll. 62–64, and col. 4, ll. 10–24.

The alleged basis of rejection is based on Lawlis's disclosure of formic acid. Lawlis does mention formic acid among the possible acids to be used with their method, though formic acid is an "outlier" having a lower pKa than the other acids recited in the reference. Lawlis states that the pKa of formic acid is 3.75 and that the pH = pKa – 2 for formic acid is 1.75. Lawlis does not provide any actual working examples using formic acid. To advance prosecution the claims were previously amended to recite organic acids other than formic acid, s*ee, e.g.*, claims 44 and 77, which would appear to obviate the alleged basis of rejection. Nonetheless, the Examiner has continued to allege obviousness of the present claims based on the disclosure of Lawlis concerning formic acid. The Examiner's position appears to be based on the assumption that one would have used the pH conditions that would have been used with formic acid even if a different acid having a higher pKa were used. However, the Office Action does not provide any justification for one of ordinary skill in the art to have used a lower pH than pKa – 2. Rather, as discussed above, once an organic acid is selected there is no reason to further lower the pH than pKa – 2 because further lowering of pH would not appreciably improve cell killing; if greater cell killing is desired, Lawlis teaches that it is ineffective to further lower the pH below the pKa – 2 threshold, and instead the organic acid concentration should be increased while keeping the pH at pKa – 2. In fact, Lawlis teaches undesirability of destroying the desired enzyme activity during cell killing, and (as was well known in the art) unnecessary lowering of pH can destroy enzyme activity. Thus, Lawlis teaches away from using the pH conditions that would have been used with formic acid even if a different acid having a higher pKa were used, because such pH values would be unnecessarily low to achieve essentially maximal cell killing, and would instead risk undesirable destruction of enzyme activity.

As to claim 73, neither Ward nor Lawlis discloses a *Camelus dromedarius* chymosin. The rejection was based on a proffered interpretation that a chymosin "derived" from bovine chymosin would encompass *Camelus dromedarius* chymosin. The claims have been amended to delete the term derived. Applicant submits that the interpretation of the claims to include a gene encoding chymosin having "any structure" is no longer permitted by the instant claims. Thus, claim 73 is not obvious over the cited references for the further reason that none of the

cited references disclose a *Camelus dromedarius* chymosin.

Thus, while Lawlis appears to be open to the possibility of operating at a pH that is less than the pKa – 2 value, there is no reason or motivation in Lawlis to lower the pH to within the claimed range (which would require lowering pH by 3 units below pKa for acetic acid or propionic acid). Though Examples I and II of Lawlis disclose pH = pKa – 2.75, these examples only described measurement of cell kill and did not include any attempt to recover active enzymes from the media. Because of the likely decrease in yield of active enzyme, one would not be motivated to use an unnecessarily low pH value but rather would use pH = pKa – 2.0 or above to achieve cell killing while minimizing loss of enzyme activity. Thus, Lawlis does not disclose or suggest any pH value within the range recited in claims 60–62, 66–71, and 73–77, and moreover, teaches away from lowering the pH values to within this range. Also as noted above, Ward does not disclose or suggest any lowering of pH of the medium to within the claimed range. Therefore, the claims are not obvious over the combination of Lawlis and Ward. Accordingly, reconsideration and withdrawal of the rejection is respectfully solicited.

Claims 44–46, 50–51, 55, and 57–59 were rejected under 35 U.S.C. § 103(a) as allegedly obvious in view of Lawlis and Ward and in further view of Chang, "Chemistry," McGraw Hill Inc., New York, 1991, p. 734 ("Chang") and Van Ooijen, U.S. Patent No. 5,371, 287 ("Van Ooijen"). Applicant respectfully traverses.

Chang is cited for the teaching that lactic acid is a 3-carbon organic acid. Though the provided copy of the reference is largely unreadable due to poor copy quality, Applicant does not dispute that lactic acid is a 3-carbon organic acid.

Van Ooijen is cited for the proposition that the pKa of lactic acid is 3.08. However, this is incorrect. The pKa of lactic acid is 3.86. See Exhibit L, attached (The Merck Index, 14th Ed. (2006), pg. 5334). Thus, the pKa – 2 is 1.86, which is outside of the claimed pH range.

The deficiencies of Lawlis and Ward are discussed above. Chang and Van Ooijen do not cure these deficiencies, and the present claims are unobvious for at least the reasons stated above with claims 60–62, 66–71, and 73–77. Specifically, Lawlis teaches away from using a pH lower than pKa – 2 because (1) further lowering of pH is ineffective to increase killing; (2) if greater killing is desired, Lawlis only teaches achieving this by increasing the acid concentration without altering pH; and (3) because lowering pH risks loss of desired enzyme activity, one of skill in the

art would not lower the pH beyond the value that achieves essentially maximal cell killing, i.e., pH = pKa – 2.

Because the references do not disclose or suggest lowering the pH to within the claimed range, and moreover, the references teach away from further lowering of the pH below the pKa – 2 threshold, claims 44–46, 50–51, 55, and 57–59 are not obvious over Lawlis and Ward in further view of Chang and Van Ooijen. Accordingly, reconsideration and withdrawal of the rejection is respectfully solicited.

Claims 44–46, 50–55, and 57–59 were rejected under 35 U.S.C. § 103(a) as allegedly obvious in view of Lawlis and Ward. The examiner correctly acknowledges that Lawlis does not teach using lactic acid, but then alleges that "the combination of references as noted above teaches or suggests using lactic acid in the method of Lawlis." Office Action, page 20. Applicant interprets this to be a reference to Chang, and respectfully requests clarification if this misapprehends the intended meaning. Applicant respectfully traverses.

The alleged basis of rejection is based on Ward's disclosure that cell killing can be effective for pH of pKa – 2, or lower pH values. However, as discussed above with claim 60 *et seq*, Lawlis teaches away from using a pH lower than pKa – 2 because (1) further lowering of pH is ineffective to increase killing; (2) if greater killing is desired, Lawlis only teaches achieving this by increasing the acid concentration without altering pH; and (3) because lowering pH risks loss of desired enzyme activity, one of skill in the art would not lower the pH beyond the value that achieves essentially maximal cell killing, i.e., pH = pKa – 2.

Moreover, claim 44 recites lowering the pH using lactic acid, acetic acid, propionic acid, or citric acid, and accordingly, Lawlis's disclosures concerning formic acid are immaterial to the present claims.

Unexpected Results

Even if a *prima facie* case of obviousness had been made (which Applicant disputes) it would be overcome by the unexpected results obtained using the claimed method. Specifically, Applicants have shown that glucoamylase activity is unexpectedly reduced while chymosin activity is maintained at a pH of 1.5 to 1.8 for recombinant bovine chymosin. There is no indication in any of the cited references that such effect would have been expected. Rather, one

would have expected based on the knowledge in the art at the time of the invention that lowering the pH would have inactivated all enzymatic activity. To advance prosecution, Applicant will provide evidence of results obtained using camel chymosin that are similar to those disclosed in the specification for bovine chymosin. It was unexpected that glucoamylase activity could be reduced while chymosin activity is maintained. Accordingly, Applicant respectfully requests that the Obviousness rejections be withdrawn for the further reason that the claimed method achieves unexpected results.

CONCLUSIONS

Applicant submits that these amendments and arguments overcome all of the rejections as stated in the Office Action and places the pending claims in condition for allowance. Should any issues remain to be discussed in this application, the undersigned may be reached by telephone. Please charge any fees due for consideration of this paper, including fees for extension of time, to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,
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